Environmental Pollution **56** (1989) 354–355

CONTENTS OF VOLUME 56

Number 1

Effects of Carbaryl on the Spring Zooplankton Communities in Ponds . . 1
TAKAYUKI HANAZATO & MASAYUKI YASUNO (Japan)

Acute Toxicity of Triphenyltin Hydroxide to Three Cladoceran Species . . 11
EDWARD R. KLINE, ALFRED W. JARVINEN & MICHAEL L. KNUTH (USA)

Ammonia Emissions from Cattle, Pig and Poultry Wastes Applied to Pasture . 19
D. R. LOCKYER, B. F. PAIN (UK) & J. V. KLARENBEEK (The Netherlands)

The Sensitivity of Early 20th Century Cultivars of Wheat to Air Pollution . 31
RICHARD P. GOULD & T. A. MANSFIELD (UK)

Intraparticle Diffusion of a Basic Dye During Adsorption onto Sphagnum Peat 39
S. J. ALLEN, G. MCKAY & K. Y. H. KHADER (UK)

An Evaluation of the Extraction Efficiencies of Some Common Extractants for Fe, Cr, Mn, Ni, Pb and Cu on Five Grain-Size Fractionated, Tropical Marine Sediments 51
LINCOLN HALL & IVAN CHANG-YEN (Trinidad)

Persistency of Highly Toxic Coplanar PCBs in Aquatic Ecosystems: Uptake and Release Kinetics of Coplanar PCBs in Green-lipped Mussels (*Perna viridis* Linnaeus) 65
NARAYAN KANNAN, SHINSUKE TANABE, RYO TATSUKAWA (Japan) & DAVID J. H. PHILLIPS (Hong Kong)

Concentrations of Lead in Aquatic Macrophytes from Shoal Lake, Manitoba, Canada 77
PATRICIA REIMER (Canada)

Number 2

The Effects of Road and Bridge Construction on the Bank-Root Macrobenthic Invertebrates of a Southern Nigerian Stream 85
ANTHONY E. OGBEIBU & REGINALD VICTOR (Nigeria)

Potential of Recycling Gamma-irradiated Sewage Sludge for use as a Fertilizer: A Study on Chickpea (*Cicer arietinum*) 101
GAGAN A. PANDYA, SANGEETA SACHIDANAND & VINOD V. MODI (India)

Residual Metal Concentrations in Soils and Leaf Accumulations in Tobacco a Decade Following Farmland Application of Municipal Sludge 113
CHARLES A. ADAMU, PAUL F. BELL, CHARLES MULCHI & RUFUS CHANEY (USA)

Vegetation Establishment on a Deposit of Zinc Mine Wastes 127
JOHAN BERGHOLM & ELIEL STEEN (Sweden)

Peroxidative Processes Induced in Bean Leaves by Fumigation with Sulphur Dioxide 145
GERHARD SANDMANN & HILDA GÁMEZ GONZALES (FRG)

The Spatial Distribution of Different Elements in and on the Foliage of Norway Spruce Growing in Switzerland 155
W. LANDOLT, M. GUECHEVA & J. B. BUCHER (Switzerland)

Book Reviews 169

Announcements 173

Environ. Pollut. (**56**) (1989)—© 1989 Elsevier Science Publishers Ltd, England. Printed in Great Britain

Number 3

Effect of Ambient Ozone and Acid Mist on Aphid Development . . . 177
SABINE BRAUN & WALTER FLÜCKIGER (Switzerland)

The Effects of Dredging and Reclamation on Metal Levels in Water and Sediments from an Estuarine Environment off Trinidad, West Indies 189
LINCOLN A. HALL (Trinidad)

Ambient Air Pollution Induced Changes in Amino Acid Pattern of Phloem Sap in Host Plants—Relevance to Aphid Infestation 209
M. BOLSINGER & W. FLÜCKIGER (Switzerland)

Organochlorine Contaminants in Eggs of Seabirds in the Northwest Atlantic, 1968–1984 217
P. A. PEARCE, J. E. ELLIOTT, D. B. PEAKALL & R. J. NORSTROM (Canada)

Validity and Uncertainty in the Calculation of an Emission Inventory for Ammonia Arising from Agriculture in Great Britain 237
M. KRUSE, H. M. APSIMON & J. N. B. BELL (UK)

Book Review 259

Announcements 261

Number 4

Survival and Activity of *Streptococcus faecalis* and *Escherichia coli* in Petroleum-contaminated Tropical Marine Waters 263
JORGE W. SANTO DOMINGO, FRANCISCO A. FUENTES & TERRY C. HAZEN (Puerto Rico)

Chemical and Biological Effects of Acid, Aluminium and Lime Additions to a Welsh Hill-stream 283
N. S. WEATHERLEY, S. P. THOMAS & S. J. ORMEROD (UK)

Avoidance by Olfaction in a Fish, Medaka (*Oryzias latipes*), to Aquatic Contaminants 299
HIDEO HIDAKA & RYO TATSUKAWA (Japan)

Effects of Simulated Acid Rain on Growth Rate in a Spruce-living Spider . . 311
BENGT GUNNARSSON & JÖRGEN JOHNSSON (Sweden)

Toxic and Sublethal Effects of Endosulfan and Carbaryl on Growth and Egg Production of *Moina micrura* Kurz (Cladocera:Moinidae) 319
M. KRISHNAN & S. CHOCKALINGAM (India)

Effect of Landfill Leachate Irrigation on Red Maple (*Acer rubrum* L.) and Sugar Maple (*Acer saccharum* Marsh.) Seedling Growth and on Foliar Nutrient Concentrations 327
ANDREW M. GORDON, RAYMOND A. McBRIDE, AVRIL J. FISKEN & TOM E. BATES (Canada)

Polynuclear Aromatic Hydrocarbons in an Agricultural Soil: Long-term Changes in Profile Distribution 337
K. C. JONES, J. A. STRATFORD, P. TIDRIDGE, K. S. WATERHOUSE & A. E. JOHNSTON (UK)

Announcement 353